

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2006/306803

## A. CLASSIFICATION OF SUBJECT MATTER

**C12N15/09**(2006.01), **A61K39/395**(2006.01), **C07K16/18**(2006.01), **C12N1/15**(2006.01), **C12N1/19**(2006.01), **C12N1/21**(2006.01), **C12N5/10**(2006.01), **C12P21/02**(2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

**C12N15/09**(2006.01), **A61K39/395**(2006.01), **C07K16/18**(2006.01), **C12N1/15**(2006.01), **C12N1/19**(2006.01), **C12N1/21**(2006.01), **C12N5/10**(2006.01), **C12P21/02**(2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2006
Kokai Jitsuyo Shinan Koho	1971-2006	Toroku Jitsuyo Shinan Koho	1994-2006

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

JSTPlus (JDream2)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Sal-Man N. et al., Arginine mutations within a transmembrane domain of Tar, an Escherichia coli aspartate receptor, can drive homodimer dissociation and heterodimer association in vivo, Biochem.J., 2005 Jan. 1, Vol.385 (Pt 1), pages 29 to 36, particularly, page 29, lower right column, line 6th from the bottom to page 30, left column, line 23	1-97
Y	Kumar R. et al., The second PDZ domain of INAD is a type I domain involved in binding to eye protein kinase C. Mutational analysis and naturally occurring variants, J.Biol.Chem., 2001, Vol.276, No.27, pages 24971 to 24977, particularly, page 24971, right column, lines 25 to 31; page 24974, left column, lines 4 to 11; Fig. 2	1-97

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
29 June, 2006 (29.06.06)

Date of mailing of the international search report  
11 July, 2006 (11.07.06)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2006/306803

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2004-0866862 A (Celestar Lexico-Sciences Inc.), 18 March, 2004 (18.03.04), Particularly, abstract; Fig. 8; Par. No. [0019] & US 2005/0130224 A1 & EP 1510943 A1 & WO 03/107218 A1	1-97
Y	JP 11-500916 A (Genentech Inc.), 26 January, 1999 (26.01.99), Particularly, Claims; Figs. 1 to 4 & US 5731168 A & WO 96/027011 A1 & EP 812357 A1	17-23, 41-47, 68-97
A	Maity H. et al., Equilibrium unfolding of dimeric and engineered monomeric forms of lambda Cro (F58W) repressor and the effect of added salts: evidence for the formation of folded monomer induced by sodium perchlorate., Arch.Biochem.Biophys., 01 February, 2005 (01.02.05), Vol.434, No.1, pages 93 to 107	1-97
A	Liu X.Y. et al., Functional interactions between arginine-133 and aspartate-88 in the human reduced folate carrier: evidence for a charge-pair association, Biochem.J. 2001 , Vol.358(Pt), pages 511 to 516	1-97
A	WO 97/10354 A1 (KYOWA HAKKO KOGYO CO., LTD.), 20 March, 1997 (20.03.97), Particularly, page 84, 9th line from the bottom to page 90, 9th line from the bottom & US 6018032 A & EP 811691 A1	1-97
A	JP 8-500979 A1 (SMITH KLINE BEECHAM CORP.), 06 February, 1996 (06.02.96), Particularly, examples 4 to 6 & WO 94/05690 A1	1-97

国際調査報告

国際出願番号 PCT/J P 2006/306803

## A. 発明の属する分野の分類（国際特許分類（I P C））

Int.Cl. C12N15/09(2006.01), A61K39/395(2006.01), C07K16/18(2006.01), C12N1/15(2006.01), C12N1/19(2006.01), C12N1/21(2006.01), C12N5/10(2006.01), C12P21/02(2006.01)

## B. 調査を行った分野

調査を行った最小限資料（国際特許分類（I P C））

Int.Cl. C12N15/09(2006.01), A61K39/395(2006.01), C07K16/18(2006.01), C12N1/15(2006.01), C12N1/19(2006.01), C12N1/21(2006.01), C12N5/10(2006.01), C12P21/02(2006.01)

最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報	1922-1996年
日本国公開実用新案公報	1971-2006年
日本国実用新案登録公報	1996-2006年
日本国登録実用新案公報	1994-2006年

国際調査で使用した電子データベース（データベースの名称、調査に使用した用語）

JSTPlus(JDream2)

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
Y	Sal-Man N et al, Arginine mutations within a transmembrane domain of Tar, an Escherichia coli aspartate receptor, can drive homodimer dissociation and heterodimer association in vivo, Biochem J, 2005 Jan 1, vol.385(Pt 1), p.29-36、特に第 29 頁右欄下から 6 行—第 30 頁左欄第 23 行等参照	1-97
Y	Kumar R et al, The second PDZ domain of INAD is a type I domain involved in binding to eye protein kinase C. Mutational analysis and naturally occurring variants, J Biol Chem, 2001, vol.276, no.27,	1-97

☒ C欄の続きにも文献が列挙されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

「A」特に関連のある文献ではなく、一般的技術水準を示すもの  
「E」国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの  
「L」優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献（理由を付す）  
「O」口頭による開示、使用、展示等に言及する文献  
「P」国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

「T」国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの  
「X」特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの  
「Y」特に関連のある文献であって、当該文献と他の 1 以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの  
「&」同一パテントファミリー文献

国際調査を完了した日

29.06.2006

国際調査報告の発送日

11.07.2006

国際調査機関の名称及びあて先

日本国特許庁（I S A/J P）  
郵便番号 100-8915  
東京都千代田区霞が関三丁目 4 番 3 号

特許庁審査官（権限のある職員）

光本 美奈子

電話番号 03-3581-1101 内線 3448

4B

9359

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
	p.24971-24977、特に第 24971 頁右欄第 25-31 行、第 24974 頁左欄第 4-11 行、 図 2 等参照	
Y	JP 2004-0866862 A (Celestar Lexico-Sciences Inc) 2004.03.18, 特に要約、図 8,[0019]等& US 2005/0130224 A1 & EP 1510943 A1 & WO 03/107218 A1	1 - 9 7
Y	JP 11-500916 A (Genentech Inc) 1999.01.26, 特に請求の範囲、図 1—図 4 等 & US 5731168 A & WO 96/027011 A1 & EP 812357 A1	1 7 - 2 3 , 4 1 - 4 7 , 6 8 - 9 7
A	Maity H et al, Equilibrium unfolding of dimeric and engineered monomeric forms of lambda Cro (F58W) repressor and the effect of added salts: evidence for the formation of folded monomer induced by sodium perchlorate., Arch Biochem Biophys, 2005 Feb 1, vol.434, no.1, p.93-107	1 - 9 7
A	Liu XY et al, Functional interactions between arginine-133 and aspartate-88 in the human reduced folate carrier: evidence for a charge-pair association, Biochem J. 2001 , vol.358(Pt 2), p.511-516	1 - 9 7
A	WO 97/10354 A1 (KYOWA HAKKO KOGYO CO., LTD) 1997.03.20, 特に第 84 頁下 から第 9 行—第 90 頁下から 9 行 & US 6018032 A & EP 811691 A1	1 - 9 7
A	JP 8-500979 A1 (SMITH KLINE BEECHAM CORP.) 1996.02.06, 特に実施例 4— 6 参照& WO 94/05690 A1	1 - 9 7